

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of the claims as follows:

1. (Canceled)
2. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim ~~[[1]]~~ 68 wherein said halogenated xanthene comprises Rose Bengal.
3. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim ~~[[1]]~~ 68 wherein said halogenated xanthene comprises 4,5,6,7-Tetrabromoerythrosin.
4. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim ~~[[1]]~~ 68 wherein said halogenated xanthene includes as a functional derivative at least one targeting moiety selected from the group consisting of deoxyribonucleic acid (DNA), ribonucleic acid (RNA), amino acids, proteins, antibodies, ligands, haptens, carbohydrate receptors or complexing agents, lipid receptors or complexing agents, protein receptors or complexing agents, chelators, ~~encapsulating vehicles~~ short- or long-chain aliphatic or aromatic hydrocarbons, aldehydes, ketones, alcohols, esters, amides, amines, nitriles, and azides.
- 5-7. (Canceled)

8. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein said halogenated xanthene includes at least one halogen selected from the group consisting of iodine and bromine.

9. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein said halogenated xanthene is selected from the group consisting of Phloxine B, Erythrosin B and Eosin Y.

10-13. (Canceled)

14. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein at least one biological targeting moiety is attached to said halogenated xanthene to enhance targeting of said halogenated xanthene to biologically sensitive structures of said cancer or tumors.

15. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein at least one chemical targeting moiety is attached to said halogenated xanthene to enhance targeting of said halogenated xanthene to biologically sensitive structures of said cancer or tumors.

16-19. (Canceled)

20. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim 18 wherein said delivery vehicle is selected from the group consisting of micelles, nanoparticles and liposomes.

21-51. (Canceled)

52. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein said ionizing radiation is approximately greater than or equal to 1 keV and less than or equal to approximately 1000 MeV.

53-54. (Canceled)

55. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein said halogenated xanthene includes as a functional derivative at least one targeting moiety selected from the group consisting of hydrophilic and hydrophobic moieties.

56. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[1]] 68 wherein said ionizing radiation comprises x-rays.

57. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim 56 wherein said x-rays have an energy between 30 kiloelectron volts and 1000 megaelectron volts.

58-59. (Canceled)

60. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[10]] 71 wherein said halogenated xanthene comprises Rose Bengal.

61. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[10]] 71 wherein said halogenated xanthene includes as a functional derivative at least one targeting moiety selected from the group consisting of deoxyribonucleic acid (DNA), ribonucleic acid (RNA), amino acids, proteins, antibodies, ligands, haptens, carbohydrate receptors or complexing agents, lipid receptors or complexing agents, protein receptors or complexing agents, chelators, ~~encapsulating vehicles~~ short- or long-chain aliphatic or aromatic hydrocarbons, aldehydes, ketones, alcohols, esters, amides, amines, nitriles, and azides.

62-63. (Canceled)

64. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[51]] 69, wherein said halogenated xanthene comprises Rose Bengal.

65. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[51]] 69 wherein said halogenated xanthene includes as a functional derivative at least one targeting moiety selected from the group consisting of deoxyribonucleic acid (DNA), ribonucleic acid (RNA), amino acids, proteins, antibodies, ligands, haptens, carbohydrate receptors or complexing agents, lipid receptors or complexing agents, protein receptors or complexing agents, chelators, ~~encapsulating vehicles~~ short- or long-chain aliphatic or aromatic hydrocarbons, aldehydes, ketones, alcohols, esters, amides, amines, nitriles, and azides.

66. (Currently Amended) The ~~radiosensitizer agent~~ combination of Claim [[51]] 69 wherein said halogenated xanthene also is an imaging contrast agent.

67 (Currently Amended). The ~~radiosensitizer agent~~ combination of Claim [[51]] 69 wherein said halogenated xanthene is encapsulated in a delivery vehicle.

68 (New). A combination for treatment of cancer or tumors, said combination consisting of a radiosensitizer agent and applied ionizing radiation, said radiosensitizer agent comprising a halogenated xanthene, wherein said radiosensitizer agent interacts with said applied ionizing radiation upon application of said applied ionizing radiation to said cancer or tumors to enhance the therapeutic efficacy of said applied ionizing radiation, wherein said halogenated xanthene is not contained in an immuno-liposome.

69 (New). A combination for treatment of cancer or tumors, said combination consisting of a radiosensitizer agent and applied ionizing radiation, wherein said radiosensitizer agent comprises a halogenated xanthene and said applied ionizing radiation has an energy greater than 1 keV and less than 1000 MeV, and wherein said halogenated xanthene is not contained in an immuno-liposome.

70 (New). A combination for treatment of cancer or tumors using radiosensitization, said combination consisting of a radiosensitizer agent and applied ionizing radiation, said radiosensitizer agent comprising a halogenated xanthene, wherein said applied ionizing radiation has an energy greater than 1 keV and less than 1000 MeV, and wherein said halogenated xanthene is not contained in an immuno-liposome.

71 (New). In combination, a radiosensitizer agent and applied ionizing radiation for treatment of cancer or tumors, said radiosensitizer agent comprising a halogenated xanthene and said

applied ionizing radiation comprising x-rays having an energy greater than 30 keV, wherein said radiosensitizer agent is activated by said x-rays, and wherein said halogenated xanthene is not contained in an immuno-liposome.

72 (New). In combination, a radiosensitizer agent and applied ionizing radiation for treatment of cancer or tumors using radiosensitization, said radiosensitizer agent comprising a halogenated xanthene, wherein said applied ionizing radiation has an energy greater than 1 keV and less than 1000 MeV, and wherein said halogenated xanthene is not contained in an immuno-liposome.

73 (New). A halogenated xanthene and applied ionizing radiation for treatment of cancer or tumors using radiosensitization, wherein said applied ionizing radiation has an energy greater than 1 keV and less than 1000 MeV, and wherein said halogenated xanthene is not contained in an immuno-liposome.